

Preliminary Amendment

with electro optical hardware to achieve orientation independence. CCD technology, liquid-crystal compensator optics, and computer algorithms are used to quantify birefringence magnitude (called retardance) and orientation (called azimuth) at every image point in the field of view. The polscope's orientation-independence enables quantification of retardance magnitude and azimuth of spindle fibers within microtubules, because differences in these parameters result from the tissue itself rather than settings of the compensators and stages. The polscope is described in, **e.g.**, U.S. Patent 5,521,705, which is incorporated herein by reference.

A1  
cont'd  
A method of measuring retardance using this polscope is disclosed in U.S. application serial no.

09/883,602 filed on June 18, 2001, also incorporated herein by reference.

Please replace the paragraph beginning at page 11, line 3, with the following  
rewritten paragraph:

A2  
--FIGS. 1C and 1D are polscope images of human eggs;--

Please replace the paragraph beginning at page 11, line 10, with the following  
rewritten paragraph:

A3  
--FIGS. 6A and 6B show retardance vs. position in the spindle of a human  
metaphase II oocyte, along lines A and B in FIG. 6C.--

**REMARKS**

The foregoing provides the information necessary for a proper incorporation by reference, and correct the drawing description to conform to the formal drawings submitted herewith.